

Double Star Observations, 1897-98. By J. L. Scott.

The following measures of Southern double stars were made with a 5-inch equatorial refractor, O.G. by Casella, mounting by T. Cooke & Sons. The double parallel wire micrometer is also by these makers, the value of one revolution of the screw, as determined by transits of circumpolar stars, being $24''\cdot180$.

Bright field illumination.

Star's Name.	Mags.	R.A. h m	S Dec. ° '	P.A. °	Distance. "	Date. 1890 +	Power.
β 391 (κ' Sculptoris)	$6\frac{1}{2}, 6\frac{1}{2}$	0 4	$28^{\circ} 33'$	272°2	1'15	7'936	230
				270°5	1'20	7'939	"
				270°9	1'08	7'967	"
				271°3	1'00	7'975	"
				271°2	1'11		
h 1957 ...	$7, 8\frac{1}{2}$	0 17	23 34	23°4	6'09	7'923	162
				21°6	6'20	7'931	"
				22°5	6'15		
Ll 1662...	$7\frac{1}{2}, 7\frac{1}{2}$	0 53	16 15	216°4	6'58	7'904	162
				215°5	6'43	7'906	"
				216°0	6'50		
Σ 91 (Ll 1965)	$7\frac{1}{2}, 8\frac{1}{2}$	1 02	2 18	322°4	4'23	7'745	230
				320°5	4'11	7'747	"
				321°9	4'38	7'750	"
				321°6	4'24		
42 Ceti (Σ 113)	$6\frac{1}{4}, 7\frac{1}{2}$	1 14	1 1	354°9	1'20	7'747	230
				353°5	1'32	7'750	"
				354°2	1'26		
h 2036 ...	$7\frac{1}{2}, 7\frac{1}{2}$	1 15	16 20	16°4	1'52	7'887	230
				15°9	1'60	7'904	"
				16°8	1'57	7'917	"
				16°4	1'56		
A G.C. 1299 ...	$6\frac{1}{2}, 8\frac{3}{4}$	1 16	19 44	74°9	5'22	7'747	162
				74°8	5'12	7'767	"
				74°9	5'17		

428	<i>Mr. Scott, Double Star</i>						LIX. 7,
Star's Name.	Mags.	R.A. h m	S. Dec.	P.A.	Distance.	Date.	Power.
β 745 (λ Sculptoris)	6, 8	1 31	30° 26'	94° 8'	1" 80	1890 + 7·904	230
				93° 7'	1·86	7·912	„
				93° 9'	1·94	7·923	„
				94° 1'	1·87		
Lac 485...	... 7½, 8	1 34	38 6	274° 8'	19·55	7·904	162
				274° 9'	18·95	7·906	„
				274° 9'	19·25		
Σ 147 ...	... 5½, 7½	1 37	11 50	87° 2'	3·92	7·887	162
				86° 3'	4 18	7·893	„
				86° 8'	4·05		
229 Ceti	... 7, 7¼	1 54	23 24	306° 2'	8·12	7·893	162
				306° 4'	8·49	7·904	„
				306° 3'	8·30		
Ll 4219...	... 8, 8¼	2 10	18 47	346° 1'	1·98	7·887	230
				346° 6'	2·04	7·904	„
				346° 4'	2·01		
Σ 280 ...	... 8, 8	2 28	6 10	348° 9'	3·63	7·917	162
				348° 6'	3·76	7·923	„
				348° 8'	3·70		
h 3506 ...	... 5, 8	2 29	28 40	243° 9'	10·60	7·904	162
				245° 6'	10·40	7·906	„
				244° 8'	10·50		
h 3532 ...	... 6½, 8½	2 44	37 50	148° 7'	5·05	7·904	162
				149° 3'	5·42	7·906	„
				149° 0'	5·29		
θ Eridani	... 3, 4	2 54	40 43	85° 7'	8·60	7·936	105
				84° 9'	8·52	7·939	„
				85° 2'	8·58	7·945	„
				85° 3'	8·57		
h 3555 (12 Eridani)	3, 8	3 8	29 23	328° 2'	1·70	7·895	230
				330° 5'	1·55	7·912	„
				329° 4'	1·63		

Star's Name.	Mags.	R.A.	S. Dec.	P.A.	Distance.	Date.	Power.
		^h ^m	[°] [']	[°] [']	["]	^{1890 +}	
<i>h</i> 3565 ...	5 $\frac{3}{4}$, 8 $\frac{1}{2}$	3 14	18 56	115 [°] 4	6 ["] 10	7 ⁹⁰⁴	162
				115 [°] 7	6 ["] 29	7 ⁹⁰⁶	„
				115 [°] 6	6 ["] 20		
<i>h</i> 3597 (<i>f</i> Eridani)	4 $\frac{3}{4}$, 5 $\frac{1}{2}$	3 45	37 56	205 [°] 1	7 ["] 30	7 ⁹¹²	162
				205 [°] 7	7 ["] 42	7 ⁹¹⁷	105
				205 [°] 4	7 ["] 36		
<i>h</i> 3611 ...	7, 7 $\frac{1}{2}$	3 53	40 16	142 [°] 9	4 ["] 05	7 ⁹⁰¹	162
				143 [°] 4	4 ["] 20	7 ⁹⁰⁶	„
				143 [°] 2	4 ["] 13		
40 Eridani (A B)	4, 9	4 10	7 47	105 [°] 4	82 ["] 40	7 ⁹¹²	105
				105 [°] 1	82 ["] 10	7 ⁹¹⁷	„
				105 [°] 3	82 ["] 25		
Ll 8521...	7, 9	4 24	25 28	351 [°] 5	6 ["] 75	7 ⁹³⁶	162
				352 [°] 4	6 ["] 52	7 ⁹³⁹	105
				351 [°] 9	6 ["] 88	7 ⁹⁴⁵	„
				351 [°] 9	6 ["] 72		
33 Orionis	6, 8	5 25	N. 3 12	26 [°] 3	1 ["] 75	7 ⁹³⁹	230
				25 [°] 4	2 ["] 05	7 ⁹⁶⁷	„
				25 [°] 7	1 ["] 88	7 ⁹⁷⁵	„
				25 [°] 8	1 ["] 89		
52 Orionis	6, 6 $\frac{1}{2}$	5 42	N. 6 28	208 [°] 4	1 ["] 40	8 ⁰⁰⁸	230
				208 [°] 3	1 ["] 52	8 ⁰¹¹	„
				209 [°] 0	1 ["] 35	8 ⁰¹⁶	„
				208 [°] 5	1 ["] 42		
β 201 (Ll 14925)	7, 8	7 33	20 0	333 [°] 2	2 ["] 85	8 ⁰⁹⁶	230
				332 [°] 6	2 ["] 70	8 ¹¹⁰	„
				332 [°] 9	2 ["] 78		
β 210 ...	6 $\frac{1}{2}$, 6 $\frac{1}{2}$	8 51	16 58	183 [°] 7	2 ["] 50	8 ⁰⁸⁵	230
				183 [°] 2	2 ["] 56	8 ⁰⁹⁶	„
				183 [°] 5	2 ["] 62	8 ¹¹⁰	„
				183 [°] 5	2 ["] 56		
Σ 1788 ...	7, 8 $\frac{1}{2}$	13 48	7 31	77 [°] 6	2 ["] 80	8 ⁴¹⁶	230
				75 [°] 1	3 ["] 01	8 ⁴¹⁹	„
				77 [°] 7	3 ["] 20	8 ⁴²⁴	„
				76 [°] 8	3 ["] 00		

430

Mr. Scott, Double Star

LIX. 7,

Star's Name.	Mags.	R.A. h m	S. Dec. ° ' "	P.A. °	Distance. "	Date. 1890 +	Power.
β 106 (μ Libræ)	$5\frac{1}{2}, 6\frac{1}{2}$	14 42	13 39	345°1	1"60	8·416	230
				344·4	1·56	8·419	"
				344·8	1·58		
P xiv. 212 ...	6, 8	14 50	20 53	293·3	15·84	8·416	162
				293·1	16·20	8·419	"
				293·2	16·02		
β 350 (B.A.C. 5020)	$6\frac{1}{2}, 8$	15 10	27 13	156·2	1·40	8·485	230
				154·8	1·15	8·496	"
				156·6	1·18	8·498	"
				155·9	1·24		
η 4755 ...	8, 9	15 13	36 20	201·8	4·42	8·496	162
				202·5	4·11	8·498	"
				202·2	4·27		
β 122 ...	$7, 7\frac{1}{2}$	15 34	19 27	208·5	1·90	7·490	230
				207·4	1·78	7·493	"
				208·0	1·84		
β 36 (2 Scorpil)	5, 9	15 47	25 2	275·4	2·85	8·482	230
				274·2	3·00	8·496	"
				276·8	2·78	8·501	"
				275·5	2·88		
η Lupi ...	$4, 8\frac{1}{2}$	15 53	38 6	20·4	14·65	8·465	162
				20·8	14·90	8·468	"
				20·6	14·78		
Stone 8722 ...	$7\frac{1}{2}, 8$	15 57	32 47	344·8	2·90	8·496	230
				345·2	...	8·501	"
				346·3	3·05	8·504	"
				345·0	2·92	8·509	"
				345·3	2·96		
ξ Scorpil (A B)	$4\frac{1}{2}, 5$	15 58	11 4	212·5	Elongated	7·482	230
				218·0	"	7·487	"
				215·0	"	7·490	"
				216·0	"	7·493	"
				217·1	"	7·496	"
				215·7	...		

April 1899.

Observations, 1897-98.

431

Star's Name.	Mags.	R.A.		S. Dec.	P.A.	Distance.	Date.	Power.	
		h	m	°	'	°	"	1890 +	
♄ Scorpii (C D)	7, 8	16	5	19	10	49° 0	2' 00	7' 482	230
						48° 2	2' 05	7' 487	„
						48° 9	2' 02	7' 490	„
						48° 7	2' 02		
h 4840 ...	8, 9	16	10	34	35	297° 2	4' 84	8' 501	162
						297° 9	5' 15	8' 504	„
						297° 6	5' 00		
h 4889 ...	6, 9	16	44	37	20	6° 8	6' 95	7' 482	162
						7° 3	7' 06	7' 487	„
						7° 0	7' 00		
β 416 ...	6, 8	17	12	34	53	310° 8	1' 54	7' 446	230
						308° 7	...	7' 452	„
						310° 6	2' 00	7' 463	„
						309° 6	1' 98	7' 468	„
						307° 0	1' 63	7' 479	„
						310° 7	...	7' 482	„
						305° 2	...	7' 490	„
						307° 9	1' 86	7' 496	„
Stone 9723 (A.G.C. 24226)	7, 8	17	43	30	31	188° 2	10' 25	7' 490	162
						190° 8	10' 50	7' 493	„
						189° 5	10' 38		
70 Ophiuchi	4, 6	18	0	N.2	33	284° 4	2' 10	7' 487	230
						281° 7	2' 05	7' 490	„
						283° 2	2' 18	7' 496	„
						285° 1	2' 05	7' 498	„
						282° 8	2' 20	7' 507	„
						283° 5	2' 08	7' 512	„
						283° 5	2' 11		
						274° 0	2' 15	8' 468	230
						269° 9	2' 38	8' 487	„
						271° 3	2' 10	8' 545	„
						272° 6	2' 25	8' 548	„
						273° 3	2' 35	8' 550	„
						272° 2	2' 25		

Star's Name.	Mags.	R.A.		S. Dec.	P.A.	Distance.	Date.	Power.
		h	m	°	'		¹⁸⁹⁰ +	
β 132 (B.A.C. 6158)	7, 7 $\frac{1}{4}$	18	4	19	52	222°0	Elongated	7·594
						226°0	„	7·619
						224°0	...	
21 Sagittarii (Jacob 201)	5, 9 $\frac{1}{2}$	18	19	20	36	286°9	1°68	8·542
						289°4	1°89	8·545
						287°2	...	8·548
						287°9	1°70	8·550
						287°8	1°76	
β 133 ...	7 $\frac{1}{2}$, 7 $\frac{1}{2}$	18	22	26	42	259°4	1°87	7·493
						260°5	1°57	7·498
						258°1	1°80	7·501
						259°3	1°75	
γ Cor. Australis	5 $\frac{1}{2}$, 5 $\frac{1}{2}$	18	59	37	13	155°3	1°60	7·446
						154°3	1°74	7·452
						154°8	1°52	7·455
						154°8	1°62	
						148°9	1°94	8·550
						151°5	1°79	8·556
						147°6	1°84	8·564
						146°8	2°02	8·575
						148°6	1°95	8·589
						148°7	1°91	
h 596 (Ll 36205)	7, 8	19	10	16	11	14°2	8°82	7·490
						13°3	8°68	7·493
						13°8	8°44	7·498
						13°8	8°65	
β 142 ...	8, 8	19	22	12	21	332°7	1°45	7·687
						333°2	1°68	7·693
						330°8	1°30	7·695
						334°2	1°70	7·698
						332°7	1°53	
						333°3	1°50	8·641
						333°7	1°60	8·668
						333°5	1°55	

* Companion extremely faint and difficult.

Star's Name.	Mags.	R.A.		S. Dec.	P.A.	Distance.	Date.	Power.
		h	m	°	°	"	1890 +	
<i>h</i> 5178 (Stone 10831)	7, 8 $\frac{1}{4}$	20	6	34 29	9.4	3.14	7.616	230
					10.3	2.93	7.619	"
					9.9	3.04		
<i>β</i> 762 (Stone 10844)	7, 8	20	10	32 55	302.8	2.56	7.616	230
					304.7	2.42	7.619	"
					303.8	2.49		
<i>h</i> 1537 ...	8 $\frac{1}{2}$, 8 $\frac{1}{2}$	20	29	15 44	23.0	4.00	7.693	162
					22.7	3.80	7.695	"
					22.5	4.15	7.698	"
					22.7	3.98		
<i>β</i> 153 ...	7 $\frac{1}{2}$, 10	20	41	26 47	273.4	1.70	7.624	230*
					273.0	...	7.635	"
					272.7	1.40	7.682	"
					273.0	1.55		
<i>h</i> 3003 ...	6, 9	20	47	24 10	213.7	2.05	7.611	230
					216.2	2.30	7.616	"
					215.6	2.20	7.619	"
					215.2	2.18		
A. G. C. 29052 ...	8, 9	21	4	23 37	302.1	9.91	7.641	162
<i>h</i> 3014 (Stone 11268)	8, 8	21	9	26 20	298.0	1.80	7.633	230
					297.0	1.92	7.635	"
					296.3	2.00	7.641	"
					297.1	1.91		
<i>β</i> 252 ...	8 $\frac{1}{4}$, 8 $\frac{1}{2}$	21	14	27 45	276.1	2.50	7.742	230
					277.5	2.60	7.745	"
					276.8	2.55		
<i>η</i> Piscis Australis	6, 7	21	55	28 56	115.8	1.67	7.616	230
					115.5	1.70	7.619	"
					115.8	1.72	7.624	"
					115.8	1.70		
					115.9	1.60	8.641	230
					116	1.94	8.668	"
					115.7	1.86	8.671	"
					115.9	1.80		

* Companion extremely faint.

Star's Name.	Mags.	R.A. h m	S. Dec. ° ′	P.A.	Distance.	Date. 1890 +	Power.
41 Aquarii ...	6½, 8½	22 9	21 34	116°0	5"08	7 742	162
				115°8	5'30	7 745	„
				115°9	5'19		
53 Aquarii ...	6½, 6¾	22 20	17 18	309°0	7'31	7 887	162
				308°6	7'18	7 893	„
				308°8	7'25		
ξ Aquarii ...	4, 4¼	22 23	0 32	321°8	3'30	8 641	162
				319°3	3'38	8 668	„
				319°6	3'22	8 671	„
				320°2	3'30		
Σ 2928 ...	8, 8½	22 34	13 10	313°2	4'57	7 641	162
				313°7	4'40	7 643	„
				313°4	4'49		
Σ 2935 ...	6¾, 8¼	22 37	8 50	313°6	2'70	7 682	230
				312°8	2'66	7 685	„
				313°2	2'68		
β 177 ...	8½, 8½	22 46	22 20	277°8	2'20	7 676	230
				276°5	2'24	7 682	„
				277°2	2'10	7 685	„
				277°2	2'18		
h 5367 (γ Pisc. Austral.)	5, 8	22 47	33 24	269°5	3'70	7 912	162
				267°8	3'45	7 920	230
				268°7	3'58		
h 5371 (A.G.C. 31221)	7½, 9	22 52	26 38	343°9	9'17	7 676	162
θ Gruis ...	5, 8	23 1	44 4	24°1	2'80	7 917	230
				26°8	2'20	7 920	„
				25°5	2'50		
Σ 2988 ...	7, 7½	23 6	12 27	101°3	3'70	7 887	230
				101°0	3'62	7 893	162
				101°2	3'66		
Σ 2998 (94 Aquarii)	6, 8½	23 13	14 2	349°9	12°94	7 742	162
				349°8	13°28	7 745	„
				349°9	13°11		

Star's Name.	Mags.	R. A.		S. Dec.		P.A.	Distance.	Date.	Power
		h	m	°	'			1890 +	
<i>h</i> 3184 ...	7, 8½	23	15	19	12	282°3	5'80	7'619	162
						283°0	5'15	7'641	..
						282°7	5'48		
Σ 3008 ...	8, 8½	23	18	9	2	244°3	4'40	7'923	162
						244°1	4'35	7'931	„
						244°2	4'38		
<i>i</i> ² Aquarii ...	5½, 7	23	41	19	14	138°5	5'80	7'742	162
						139°1	5'94	7'745	„
						138°8	5'87		
Brisbane 7342 ...	6, 6½	23	49	27	36	269°9	6'31	7'917	162
						269°6	6'55	7'931	„
						269°8	6'43		
Σ 3046 ...	8, 8½	23	50	10	10	245°6	3'05	7'687	162
						248°7	2'95	7'693	„
						247°2	3'00		

Shanghai :
1898 December.

Erratum.

Vol. lix., p. 297, *dele* line 5 from bottom.

K K